#1 Pre. Am

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

S. Maezawa et al.

: Art Unit:

Serial No.:

To Be Assigned

: Examiner:

Filed:

Herewith

FOR:

MULITLAYER PRINTED WIRING

BOARD AND ITS MANUFACTURING

METHOD

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents Washington, D.C. 20231 S I R:

Prior to examination, please amend the above application as

follows:

IN THE SPECIFICATION:

After the title and before the first paragraph:

THIS APPLICATION IS A U.S. NATIONAL PHASE APPLICATION OF PCT INTERNATIONAL APPLICATION PCT/JP00/08803.

IN THE DRAWINGS:

Please delete pages "4/5" and "5/5" of the drawings, also labeled as "Key to Reference Alphanumeric Characters" in their entirety.

ABSTRACT:

Please replace the abstract with the new abstract which is

attached as a separate sheet.

Respectfully submitted,

Lawrence E. Ashery, Reg. No. 34,515 Attorney for Applicants

LEA/dlm

Enclosure:

Amended Abstract

Version With Markings Showing Changes Made

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The Assistant Commissioner for Patents is hereby authorized to charge payment to Deposit Account No. 18-0350 of any fees associated with this communication.

EXPRESS MAIL Mailing Label Number: EL 923263764 US Date of Deposit: August 13, 2001

I hereby certify that this paper and fee are being deposited, under 37 C.F.R. § 1.10 and with sufficient postage, using the "Express Mail Post Office to Addressee" service of the United States Postal Service on the date indicated above and that the deposit is addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

Kathleen Lik







ABSTRACT

A multilayer printed wiring board includes (a) an inner layer material that includes an insulating substrate, an inner conductive pattern formed of a metal foil and disposed on both sides of the insulating substrate, respectively, and an interstitial via hole, (b) an insulating resin disposed on both sides of the inner layer material, respectively, (c) an outer conductive pattern disposed on the surface of the insulating resin and (d) a surface via hole electrically connecting between the inner conductive pattern and the outer conductive pattern. The outer conductive pattern is formed of a metal foil with insulating resin comprising the insulating resin and a metal foil adhered to the insulating resin. An interstitial via hole has a conductive paste that is applied to a through hole. A surface via hole has a metal plating that is applied to a non-through hole. With this structure, the excellent ability to accommodate wiring is realized. The strength in adhesion between the insulating resin and the conductive pattern for outer layer is enhanced remarkably with a resulting contribution to maintaining an excellent components mounting strength even when a outer conductive pattern becomes small in dimension.